

**NEVADA DIVISION OF ENVIRONMENTAL PROTECTION**  
**FACT SHEET**  
(pursuant to NAC 445A.236)

**Permittee Name:** The Animal Foundation  
655 N. Mojave Rd.  
Las Vegas, NV 89101

**Permit Number:** NEV2004527

**Location:** Regional Animal Campus  
655 N. Mojave Rd.  
Las Vegas, NV 89101 (Clark County)  
Latitude: 36° 10' 30"N, Longitude: 115° 06' 22"W  
Township 20S, Range 61E, Section 36

**General:** The Animal Foundation is proposing to construct and operate a package wastewater treatment plant at the Regional Animal Campus located at 655 N. Mojave Rd., which is across the street from the Bonanza-Mojave Water Resource Center (#NEV96020). The Regional Animal Campus is an animal shelter and adoption center. The Tidal Flow Wetland Living Machine<sup>®</sup> System has been selected for the package plant and is designed by Dharma Living Systems, Inc.

As part of an overall water conservation and public education effort for low environmental impact buildings, sanitary and building wastewater from the animal campus facilities (e.g., restrooms, kitchens, veterinary exam rooms, kennels, evaporative coolers, truck wash bays, etc.) will be collected in a gravity sewer and discharged to the package plant for treatment and reuse. When the package plant is down for maintenance or repair, flow from the building sewer and any surplus treated effluent will be discharged to the municipal collection system under a pre-treatment authorization from the city. The treatment train for the Living Machine<sup>®</sup> system includes flow equalization, primary settling, bio-filtration (vegetated tidal flow wetland cells), polishing (post-filtration) and disinfection. The process of pathogen disinfection and organic compound removal (e.g., effluent "color") will be accomplished by ozonation, UV (ultraviolet light) and hypochlorite addition (tablet feeder). Effluent reuse will be restricted on-site in areas connected to a floor or sink drain (building sewer). Effluent reuse includes the washing of kennels, cages and vehicles (truck wash bays) to conserve domestic water. According to the plant design, the estimated total nitrogen level in the treated effluent is  $\leq 25$  mg/l. In order to protect the shallow aquifer from potential nitrate contamination, there will be no outdoor irrigation reuse at this time with the treated effluent.

**Flow:** The design capacity of the wastewater treatment facility is specified at 25,000 gallons per day (gpd). This value is used for the flow limit (influent). The flow is to be measured with an in-line flow meter installed upstream of the wetland cells.

**Receiving Water Characteristics:** This discharge permit does not allow outdoor irrigation reuse at this time. The effluent reuse areas will be connected to the building sewer, and for this reason, there is no discharge of effluent to State ground or surface waters. Final discharge of any building wastewater or surplus effluent from this facility is to the municipal sanitary sewer.

**Proposed Effluent Limitations and Special Conditions:**

**Table 1: Plant Discharge Limitations**

PARAMETER	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	30-Day Average	Daily Maximum	Measurement Frequency	Sample Type
Flow, gpd	25,000		Continuous	Flow Meter
BOD <sub>5</sub> , mg/L (Influent)	Monitor & Report		Monthly	Discrete
BOD <sub>5</sub> , mg/L (Effluent)	30		Monthly	Discrete
TSS, mg/L (Influent)	Monitor & Report		Monthly	Discrete
TSS, mg/L (Effluent)	30		Monthly	Discrete
Total Nitrogen as N, mg/L (Effluent)	Monitor & Report		Monthly	Discrete
Total Coliform, cfu or mpn/100 ml (Effluent)	2.2	23	Weekly	Discrete
pH, Std. Units (Effluent)	Between 6.0 – 9.0		Monthly	Discrete

- **BOD<sub>5</sub> & TSS:** A secondary (i.e., biological oxidation) level of organic removal is required.
- **Total Nitrogen:** Denitrification to below 10 mg/L of total nitrogen is not required since there is no irrigation reuse at this time. Total nitrogen is to be monitored and reported in the case that the Permittee would request irrigation reuse at a later time.
- **Total Coliform:** Reuse will be conducted both indoors and outdoors in confined areas accessible to both humans and animals. Sanitary influent is supplied to the treatment plant from humans and animals. To ensure sufficient pathogen kill and provide protection of human and animal health, the Division requires disinfection to a total coliform limit of 2.2/23 cfu. The monitoring frequency for this parameter is **weekly**.
- **pH:** The pH discharge limit is within the acceptable neutral range for protection of human and animal health.
- **Operator Requirements:** NAC 445A.289 specifies a Certified Grade II Operator for operation of a wastewater treatment plant using a bio-filtration method.
- **Fee Category:** Other Permitted Discharge < 50,000 gallons daily.

**Schedule of Compliance:** The Permittee shall submit the following items to the Division for review and approval. All compliance deliverables shall be addressed to the attention of:

Division of Environmental Protection  
Bureau of Water Pollution Control  
ATTN: Compliance Coordinator – Ms. Diana Silsby  
333 West Nye Lane  
Carson City, Nevada 89706-0851  
Phone: (775) 687-9438, Fax: (775) 687-4684

- Prior to effluent reuse, the Permittee shall submit notification to the Division of the required cross-connection control documentation required in the permit.
- Within thirty (30) days after construction completion, the Permittee shall submit a copy of an engineer's certification letter that the treatment and reuse facilities were constructed in accordance with plans and specifications furnished to the Division. This letter shall be wet stamped and signed by a Nevada Professional Engineer (P.E.).
- Within ninety (90) days after commencing startup, the Permittee shall submit two (2) copies of an Operations & Maintenance (O&M) Manual for the wastewater treatment facility, prepared in accordance with the Division's WTS-2 guidance: *Minimum Information Required for an Operations and Maintenance Manual*. These documents shall be wet stamped and signed by a Nevada Professional Engineer (P.E.).
- Within ninety (90) days after commencing startup, the Permittee shall submit two (2) copies of an Effluent Management Plan for conducting effluent reuse. These documents shall be wet stamped and signed by a Nevada Professional Engineer (P.E.).

**Procedures for Public Comment:** The Notice of the Division's intent to issue the applicant a discharge permit authorizing the on-site treatment of facility wastewater and subsequent reuse, subject to the conditions contained within the permit is being sent to the **Las Vegas Review-Journal** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of thirty (30) days following the date of publication of the public notice in the newspaper. The comment period can be extended at the discretion of the Administrator. The deadline date and time by which all comments are to be submitted (via postmarked mail or time-stamped faxes, e-mails, or hand-delivered items) to the Division is **January 11, 2005 by 5:00 P.M.** A copy of the public notice and fact sheet can also be downloaded from the Division's website at the following address: <http://ndep.nv.gov/admin/public.htm>

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator or any interested agency, person or group of persons.

The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings must be conducted in accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

**Proposed Determination:** The Division has made the tentative determination to issue the proposed permit for a period of five (5) years.

Prepared by: Mark A. Kaminski, P.E.  
Technical Services Branch  
Bureau of Water Pollution Control

Date: December 6, 2004